

135 steering roller to pivot about a caster axis, while said housing allows said steering roller to pivot about a gimbal axis.

REMARKS

Claims 1-2, 9,14, and 16-18 stand rejected under 35 U.S.C. 102 (b) as being anticipated by Moe et al. Claims 1 and 8 stand rejected under 35 U.S.C. 102 (b) as being anticipated by Morse. (3,913,813). Claims 1 and 8 stand rejected under 35 U.S.C. 102(b) as being anticipated by Morse et al (3,608,796). Applicants respectfully submit that for the following reasons, claims 1-2, 9,14, and 16-18 are not anticipated under 35 U.S.C. 102(b) by Moe et al, and claims 1 and 8 are not anticipated under 35 U.S.C. 102(b) by Morse (3,913,813) or by Morse et al (3,608,796). Claims 3-7, 10-13, 15, and 19-20 would be allowable if rewritten to overcome the rejections under 35 USC 112, second paragraph, set forth in this office action (there were none set for the in this office action), and to include all of the limitations of the base claim and any intervening claims. Applicants respectfully request allowance of amended claims 3-7, 10-13, 15, and 19-20 and reconsideration and further examination of claims 1-2, 9,14, and 16-18.

Drawings

The proposed drawing correction filed on September 22, 2002 has been approved by the Examiner. The formal amended drawing is attached to this correspondence. Applicants respectfully request the Examiner enter said formal drawing.

Art Rejections

Moe et al (U.S. 5,659,851)

Claims 1-2, 9,14, and 16-18 stand rejected under 35 U.S.C. 102 (b) as being anticipated by Moe et al. With respect to claims 1, 2, 17, and 18, applicants respectfully requested the Examiner identify where Moe et al discloses "A method of web tracking adjustment for guiding a moving web in a predetermined path of travel relative to a stationary frame, comprising: biasing a steering roller in a gimbal direction; and, adjusting said bias to achieve desired tracking" (applicant's claim 1) so applicants could adequately respond. The Examiner responded by stating that "Moe et al (US 5,659,851) discloses biasing the steering roller (14) in the gimbal direction (56) through the use of springs (80). " The axis (56) of Moe et al. is not the gimbal direction. Moe et al. calls it the "steering axis 56", which corresponds to the "gimbal axis" of the captioned application. Applicants respectfully submit that the Examiner's construction of Moe et al. is in error.

Examiner further states that Moe et al discloses "a means for adjusting (94)(96)", but applicant's claim requires "adjusting said bias to achieve desired tracking." Examiner has not shown that (94) and (96) adjust the bias to achieve desired tracking. Moe et al. describes item (94) as "a tension adjusting disc (94)" and item (96) as a "tension releasing cam (96)" [column 8, lines 28-29]. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference" [MPEP 2131 quoting *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)]. Applicants again respectfully request Examiner state where in Moe et al it discloses biasing the steering roller in the gimbal direction, as previously defined, and adjusting said bias to achieve desired tracking, so that applicants can adequately respond. In the absence of such, applicants respectfully submit that the Examiner has not met his burden

under 102(b), and rejection of claims 1, 2, 17, and 18 on this basis is in error, and request that the rejection on this basis be withdrawn.

With regard to claims 9, 14 and 16, applicants respectfully requested that Examiner identify where Moe et al discloses "a gimbaled steering roller having a lateral constraint; a means for biasing said steering roller in a gimbal direction; and, a means for adjusting said bias to achieve desired tracking" so applicants could adequately respond. Examiner responded by stating that Moe et al disclosed a "means for biasing (80) in a gimbal direction (56); a means for adjusting (94)(96)." However, as stated above, the axis (56) of Moe et al. is not the gimbal direction. Moe et al. calls it the "steering axis 56", which corresponds to the "gimbal axis" of the captioned application.

Further, items (94) and (96) are not "means for adjusting said bias to achieve desired tracking." Moe et al. Describes item (94) as "a tension adjusting disc (94)" and item (96) as a "tension releasing cam (96)" [column 8, lines 28-29]. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference" [MPEP 2131 quoting *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)]. Applicants again respectfully request the Examiner show where Moe et al discloses a "means for biasing said steering roller in a gimbal direction", and "a means for adjusting said bias to achieve desired tracking." In the absence of such, applicants respectfully submit that the Examiner has not met his burden under 102(b), and rejection of claims 9, 14 and 16 on this basis is in error, and request that the rejection on this basis be withdrawn.

Morse (US 3,913,813)

Claims 1 and 8 stand rejected under 35 U.S.C. 102 (b) as being anticipated by Morse. (3,913,813). Examiner states that Morse discloses "biasing the steering roller (11) in the gimbal direction (20) through the use of resilient wire (61)." The axis (20) of Morse is not the gimbal direction. Morse

refers to (20) as a "gimbal axis." Applicants respectfully submit that the Examiner's construction of Morse (3,913,813) is in error.

The Examiner furthers states that Morse (3,913,813) discloses "adjusting the bias (60)(70)(72)". However, the yoke/screw assembly (70)(72) in Morse results in a force about the caster axis (30), not the gimbal axis (20) (see Figures 2a and 2b). Nowhere in Morse does it disclose "biasing a steering roller in a gimbal direction; and, adjusting said bias to achieve desired tracking". "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference" [MPEP 2131 quoting *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)]. Applicants again respectfully request Examiner state where in Morse (3,913,813) it discloses biasing the steering roller in the gimbal direction, and adjusting said bias to achieve desired tracking, so that applicants can adequately respond. In the absence of such, applicants respectfully submit that the Examiner has not met his burden under 102(b), and rejection of claims 1 and 8 on this basis is in error, and request that the rejection on this basis be withdrawn.

Morse et al (US 3,608,796)

Claims 1 and 8 stand rejected under 35 U.S.C. 102(b) as being anticipated by Morse et al (3,608,796). Examiner states that Morse et al discloses "biasing the steering roller (2) in the gimbal direction (34) through the use of flexure arm (40) and the U-shaped spring bracket 52." The axis (34) of Morse et al is not the gimbal direction. Morse et al refers to (34) as a "gimbal axis." Further, flexure arm (40) is used to "adjustably position the roller about axis 32" (column 2, lines 68-69), which is the caster axis. The U-shaped bracket (52) "exerts a force on flexure 40 in the direction of arrow 54" (column 3 lines 11-12). A force in the direction (54) would cause movement about the caster axis (32), not the gimbal axis (34) (see Figure 1). Applicants respectfully submit that the Examiner's construction of Morse et al (3,608,796) is in error.

Examiner further states Morse et al discloses "adjusting the bias (36)(44)(46)." The adjustment features Examiner refers to (36)(44)(46) are to position the roller (2) about the adjustment axis (32) (see column 2 lines 59-70), not the gimbal axis. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference" [MPEP 2131 quoting *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Applicants again respectfully request Examiner state where in Morse et al (3,608,796) it discloses biasing the steering roller in the gimbal direction, and adjusting said bias to achieve desired tracking, so that applicants can adequately respond. In the absence of such, applicants respectfully submit that the Examiner has not met his burden under 102(b), and rejection of claims 1 and 8 on this basis is in error, and request that the rejection on this basis be withdrawn.

Applicants respectfully submit that claims 1-20 are allowable as herein amended, and request that the amendment to the drawings and the claims be entered, and the rejections against them be withdrawn.

Respectfully submitted,



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Application Number: 09/772,177

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In re Application of:

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Examiner Minh Chau Pham

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For WEB TRACKING ADJUSTMENT DEVICE AND METHOD THROUGH
USE OF A BIASED GIMBAL

3. (once amended) [The method of claim 2] A method of web tracking adjustment for guiding a moving web in a predetermined path of travel relative to a stationary frame, comprising:

biasing a steering roller in a gimbal direction wherein said bias allows the web to ride against a lateral constraint without damaging the web, and wherein said steering roller is mounted on a roller shaft, and said lateral constraint comprises an edge guide which is rotatably mounted on said roller shaft and is axially slidable relative thereto; and,

adjusting said bias to achieve desired tracking.

4. (once amended) [The method of claim 2] A method of web tracking adjustment for guiding a moving web in a predetermined path of travel relative to a stationary frame, comprising:

biasing a steering roller in a gimbal direction wherein said bias allows the web to ride against a lateral constraint without damaging the web, wherein said steering roller is biased by a spring having an end one and an end two mounted between the frame and one end of said steering roller such that said spring end one is mounted to said frame, and said spring end two is mounted to said

steering roller, such that said spring applies a rotational force on said steering roller about a gimbal axis; and,

adjusting said bias to achieve desired tracking.

7. (twice amended) [The method of claim 1] A method of web tracking adjustment for guiding a moving web in a predetermined path of travel relative to a stationary frame, comprising:

biasing a steering roller in a gimbal direction;

adjusting said bias to achieve desired tracking, and further comprising a housing and spring flexures, wherein said housing is pivotally mounted to said frame such that said housing pivots about a gimbal axis, and wherein said steering roller is mounted on a roller shaft, which said shaft is in turn mounted to said housing by said spring flexures, such that said spring flexures allow said steering roller to pivot about a caster axis, while said housing allows said steering roller to pivot about a gimbal axis.

10. (twice amended) [The apparatus of claim 9] A web tracking apparatus for a guiding a moving web in a predetermined path of travel relative to a stationary frame, comprising:

a gimbaled steering roller having a lateral constraint;

a means for biasing said steering roller in a gimbal direction; and,

a means for adjusting said bias to achieve desired tracking, and further comprising a housing and spring flexures, wherein said housing is pivotally mounted to said frame such that said housing pivots about a gimbal axis of said steering roller, and wherein said steering roller is mounted on a roller shaft, which said shaft is in turn mounted to said housing by said spring flexures, such that said spring flexures allow said steering roller to pivot about a caster axis, while said housing allows said steering roller to pivot about a gimbal axis.

11. (once amended) [The web tracking apparatus of claim 9] A web tracking apparatus for a guiding a moving web in a predetermined path of travel relative to a stationary frame, comprising:

a gimbaled steering roller having a lateral constraint;
a means for biasing said steering roller in a gimbal direction, wherein said means for biasing said steering roller in the gimbal direction comprises a spring having an end one and an end two mounted between the frame and one end of said steering roller such that said spring end one is mounted to said frame, and said spring end two is mounted to said steering roller, such that said spring applies a rotational force on said steering roller about a gimbal axis; and,
a means for adjusting said bias to achieve desired tracking.

15. (once amended) [The web tracking apparatus of claim 14] A web tracking apparatus for a guiding a moving web in a predetermined path of travel relative to a stationary frame, comprising:

a gimbaled steering roller having a lateral constraint wherein said steering roller is mounted on a roller shaft, and wherein said lateral constraint comprises an edge guide which is rotatably mounted on said roller shaft and is axially slidable relative thereto;
a means for biasing said steering roller in a gimbal direction; and,
a means for adjusting said bias to achieve desired tracking.

19. (once amended) [The method of claim 18] A method of web tracking adjustment for guiding a photoconductor loop in an electrostatographic reproduction apparatus on a predetermined path of travel relative to a stationary frame, comprising:

biasing a steering roller in a gimbal direction wherein said steering roller has a lateral constraint, and said bias allows the web to ride against said lateral constraint without damaging the web, and wherein said steering roller is mounted

on a roller shaft, and said lateral constraint comprises an edge guide which is rotatably mounted on said roller shaft and is axially slidable relative thereto; and,
adjusting said bias to achieve desired tracking.

20. (twice amended) [The method of claim 17] A method of web tracking adjustment for guiding a photoconductor loop in a electrostatographic reproduction apparatus on a predetermined path of travel relative to a stationary frame, comprising:
biasing a steering roller in a gimbal direction; and,
adjusting said bias to achieve desired tracking, and further comprising a housing and spring flexures, wherein said housing is pivotally mounted to said frame such that said housing pivots about a gimbal axis, and wherein said steering roller is mounted on a roller shaft, which said shaft is in turn mounted to said housing by said spring flexures, such that said spring flexures allow said steering roller to pivot about a caster axis, while said housing allows said steering roller to pivot about a gimbal axis.